REMARKS

Claims 1-27 are pending. Claims 1-27 are amended. No new matter is added as a result of the above amendments. Reconsideration of presently pending claims 1-27 is respectfully requested in light of the above amendments and the following remarks.

Rejections under 35 U.S.C. §112, Second Paragraph, Claims 1-27

Claims 1-27 are rejected under 35 U.S.C. §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which applicants regards as the invention.

Regarding claims 1, 8, 14, and 21, the examiner alleges that the claims are incomplete because the body of the claim does not support the preamble and that the "sending" step is not connected to the "reading" step. By this response, claims 1 and 14 are amended to remove the unsupported portion of the preamble and to recite a determining step that connects the reading step with the sending step.

Regarding claims 5, 7, 11, 13, 18, and 25, the examiner alleges that the claims contain trademarks or trade names. By this Response, all trademarks or trade names are removed from the claims.

Regarding claims 14 and 21, the examiner alleges that the limitation of "the ISAM database comprising: polling means...; reading means...; sending means...;" renders the claim indefinite because a database can't contain polling and sending means. By this Response, claim 14 is amended to recite "the data processing computer-based system comprising: polling means...; reading means...; sending means...;"

Regarding claims 15 and 22, the examiner alleges that there is insufficient antecedent basis for "two or more data replication server", because it contradicts with "at least one data replication server" recited in claims 14 and 21. In addition, there is insufficient antecedent basis

for "at least one relational database". By this response, claim 15 is amended to recite "at least one data replication server" and "the at least one relational database" to provide proper antecedent basis.

Accordingly, Applicants respectfully request the withdrawal of the rejection to claims 1-27 under 35 U.S.C. §112, second paragraph.

Rejections Under 35 U.S.C. §103(a), Claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26

Claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26 are rejected under 35 U.S.C. §103(a) as being allegedly unpatentable over Fisher (US Patent No. 6,247,128 hereinafter referred to as "Fisher") in view of Dingman (US Patent No. 6,795,868 hereinafter referred to as "Dingman"). Applicants traverse this rejection on the grounds that these references are defective in establishing a prima facie case of obviousness with respect to claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26.

As the PTO recognizes in MPEP § 2142:

> ... *The examiner bears the initial burden of factually supporting any prima facie conclusion of obviousness. If the examiner does not produce a prima facie case, the applicant is under no obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima facie case of obviousness for the following, mutually exclusive, reasons.

1.   Even When Combined, the References Do Not Teach the Claimed Subject Matter

The Fisher and Dingman patents cannot be applied to reject claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26 under 35 U.S.C. § 103(a), which provides that:

> *A patent may not be obtained ... if the differences between the subject matter sought to be patented and the prior art are such that*

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*the subject matter as a whole would have been obvious at the time
the invention was made to a person having ordinary skill in the art
to which the subject matter pertains ... (Emphasis added)*

Thus, when evaluating a claim for determining obviousness, all limitations of the claim must be evaluated. However, neither Fisher nor Dingman, either alone or in combination, discloses or suggests polling a transaction log file of a non-relational database of a proprietary system at a time interval for file transactions of the non-relational database by at least one data replication server not running the non-relational database; responsive to detecting file transactions of the non-relational database, reading the file transactions by the at least one data replication server and determining if the file transactions indicate a change in the non-relational database; or if the file transactions indicate a change in the non-relational database, sending the file transactions from the at least one data replication server to at least one relational database, as recited in claims 1 and 14.

The examiner alleges that Fisher discloses these features at column 27, lines 12-15, 14-65 and column 9, lines 51-57. However, in these section, Fisher merely discloses a system that is running a relational database replicates changes of the relational database to another relational database. Fig. 6 of Fisher is shown below:
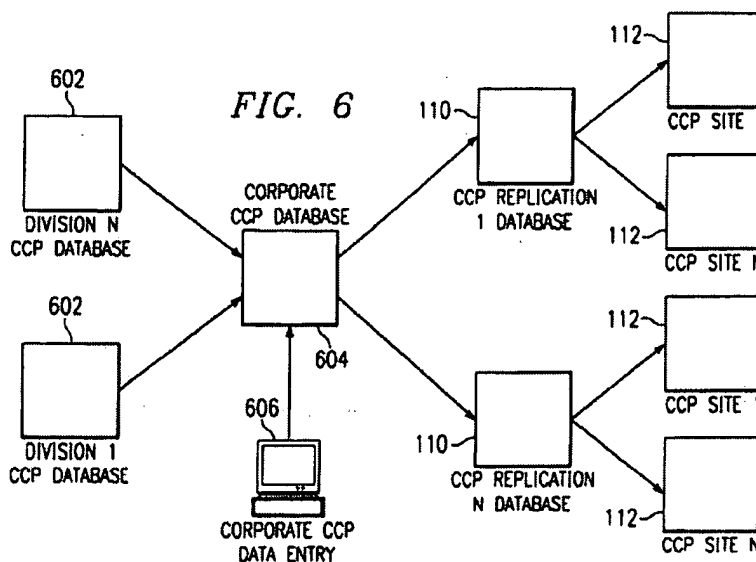
FIG. 6

As shown in Fig. 6 and at column 27, lines 8-21, Fisher discloses that "separate software engineering groups 102 release software tags and their associated rules into an isolated CCP database for their particular group 602. Any change to the database creates a transactional record. The DBMSs running on the isolated databases 602 use the transaction log to replicate the change to the corporate CCP database 604." At column 12, lines 14-20, Fisher discloses the relational database structure of the CCP database.

Thus, Fisher's system is different from the presently claimed invention in that Fisher replicates changes of one relational database to another relational database. Fisher does not disclose polling a transaction log file of a non-relational database of a proprietary system for file transactions of the non-relational database and sending the file transactions from the at least one data replication server to at least one relational database, as recited in claims 1 and 14. Since Fisher fails to disclose a non-relational database of a proprietary system, Fisher does not disclose determining if the file transactions indicate a change in the non-relational database or if the file transactions indicate a change in the non-relational database, sending the file transactions from the at least one data replication server to at least one relational database

In addition, Fisher does not disclose at least one data replication server that is not running the non-relational database. To the contrary, as discussed in the above paragraph, Fisher discloses DBMS systems, which run on the isolated databases, replicate the change to the corporate database. Thus, unlike the replication server of the presently claimed invention, which does not run the non-relational database, Fisher's replication server runs the isolation relational database. Therefore, Fisher also fails to discloses the features of claims 1 and 14.

Furthermore, Fisher fails to disclose polling a transaction log file of a non-relational database of a proprietary system at a time interval for file transactions. Fisher's DBMSs replicates the change based on a change to the database made by the software engineering group when releasing software tags and associated rules. There is no disclosure or suggestion of polling of a transaction log file for file transactions at a time interval. Therefore, Fisher does not discloses the features of claims 1 and 14.

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In addition to Fisher, Dingman also does not disclose the features of claims 1 and 14. Dingman discloses in the Abstract "a transformation engine that iterates through one or more data sources, transforms data received from the data sources, and stores the output to one or more data targets. More specifically, the transformation engine is driven by executing specified event actions upon occurrence of specified triggering events." However, Dingman's transformation engine does not poll a transaction log file of a non-relational database of a proprietary system at a time interval for file transactions of the non-relational database. At column 23, line 55 to column 26, line 45, Dingman discloses a list of events that triggers a transformation. These events include beforeTransformation, afterTransformation, BeforeNextRecord, AfterNextRecord, etc. However, the list of events does not include a time interval. Therefore, Dingman also fails to disclose the features of claim 1 and 14.

In addition, Dingman does not disclose reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database. While Dingman discloses a transformation engine that reads data from a source, Dingman does not discloses determining if the file transactions indicate a change in the non-relational database. Dingman's transformation engine merely "directs source spoke 120 to retrieve applicable data from source 124. Transformation engine 110 would perform the necessary functions on the data and then send the data to target spoke 130 to be stored in target 134 as specified by the transformation rules in the transformation map." (column 9, lines 60-65). At column 10, lines 14-37, Dingman discloses functions that transformation engine 110 performs on the data, including abort, resume, clear, map, put, clearMapPut, execute logMessage, and logTargetRecord. None of the functions, however, determines if file transactions indicate a change in the non-relational database. Therefore, Dingman also does not disclose the features of claims 1 and 14.

Thus, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26 under 35 U.S.C. §103(a) should be withdrawn.

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2.   The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly <u>not</u> the case based on the above), there is still another, mutually exclusive, and compelling reason why the Fisher and Dingman patents cannot be applied to reject claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26 under 35 U.S.C. § 103(a).

§ 2142 of the MPEP also provides:

> *...the examiner must step backward in time and into the shoes worn*
> *by the hypothetical 'person of ordinary skill in the art' when the*
> *invention was unknown and just before it was made.....The*
> *examiner must put aside knowledge of the applicant's disclosure,*
> *refrain from using hindsight, and consider the subject matter*
> *claimed 'as a whole'.*

Here, neither Fisher nor Dingman discloses, or even suggests, the desirability of the combination of <u>polling a transaction log file of a non-relational database of a proprietary system at a time interval by at least one data replication server not running the non-relational database for file transactions of the non-relational database, and reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database</u> as specified above and as claimed in claims 1 and 14. Neither Fisher nor Dingman mentions polling a transaction log file of a non-relational database of a proprietary system at a time interval for file transactions. Fisher merely discloses replicating the change based on a change to a <u>relational database</u> made by the software engineering group when releasing software tags and associated rules. Dingman merely discloses a list of events that triggers a transformation, but none of the events includes a time interval.

In addition, neither Fisher nor Dingman mentions <u>reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database</u>. Since Fisher does not disclose a non-relational database, Fisher would not disclose reading the file transaction of a non-relational database and determining if the file transactions indicate a change in the non-relational database. While Dingman discloses a transformation

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engine that reads data from a source, Dingman does not discloses determining if the file transactions indicate a change in the non-relational database. Therefore, one of ordinary skill in the art would not have been led to modify or combine the disclosures of Fisher and Dingman to reach the presently claimed invention. Even, arguendo, if a person of ordinary skill in the art were to make the alleged combination, the resulting combination would still not be <u>polling a transaction log file of a non-relational database of a proprietary system at a time interval by at least one data replication server not running the non-relational database</u> <u>for file transactions of the non-relational database, and reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database</u> as specified above and as claimed in claims 1 and 14

Thus, it is clear that neither patent provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103(a) rejection.

In this context, the MPEP further provides at § 2143.01:

> *The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.*

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claims 1 and 14. Therefore, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 1, 2, 6, 8, 12, 14-15, 19, 21, 22 and 26 under 35 U.S.C. §103(a) should be withdrawn.

Rejections Under 35 U.S.C. §103(a), Claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27

Claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 are rejected under 35 U.S.C. §103 as

being unpatentable over Fisher in view of Dingman and further in view of the alleged Applicants'

admitted prior art (AAPA).

As the PTO recognizes in MPEP § 2142:

> ... *The examiner bears the initial burden of factually supporting
> any prima facie conclusion of obviousness. If the examiner does
> not produce a prima facie case, the applicant is under no
> obligation to submit evidence of nonobviousness...*

It is submitted that, in the present case, the examiner has not factually supported a prima

facie case of obviousness for the following, mutually exclusive, reasons.

**1.   Even When Combined, the References Do Not Teach the Claimed Subject
Matter**

Fisher, Dingman, and the alleged AAPA cannot be applied to reject claims 3-5, 7, 9-11,

13, 16-18, 20, 23-25 and 27 under 35 U.S.C. § 103(a). As discussed in arguments presented

above for claims 1 and 14, neither Fisher nor Dingman, either alone or in combination, discloses

or suggests polling a transaction log file of a non-relational database of a proprietary system at a

time interval for file transactions of the non-relational database by at least one data replication

server not running the non-relational database; responsive to detecting file transactions of the

non-relational database, reading the file transactions by the at least one data replication server

and determining if the file transactions indicate a change in the non-relational database; or if the

file transactions indicate a change in the non-relational database, sending the file transactions

from the at least one data replication server to at least one relational database. The alleged

AAPA also fails to disclose such features.

On page 8, last paragraph of the current specification, Applicants disclose that relational

databases 22, 24 may include an Engineer Data Analysis (EDA) relational database or a

Manufacturing Execution System (MES) relational database, for example. However, Applicants

do not disclose the features as recited in claims 1 and 14, from which claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 depend, are well known in the art. Rather, the alleged AAPA merely discloses examples of relational databases to which file transactions may be sent from the at least one replication server. Therefore, the alleged AAPA also does not disclose the features of claims 1 and 14, from which 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 depend.

Thus, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 under 35 U.S.C. §103(a) should be withdrawn.

2.   The Combination of References is Improper

Assuming, arguendo, that none of the above arguments for non-obviousness apply (which is clearly not the case based on the above), there is still another, mutually exclusive, and compelling reason why Fisher, Dingman and the alleged AAPA cannot be applied to reject claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 under 35 U.S.C. § 103(a)

§ 2142 of the MPEP also provides:

> ...*the examiner must step backward in time and into the shoes worn by the hypothetical 'person of ordinary skill in the art' when the invention was unknown and just before it was made.....The examiner must put aside knowledge of the applicant's disclosure, refrain from using hindsight, and consider the subject matter claimed 'as a whole'.*

Here, Fisher, Dingman, and the alleged AAPA fail to disclose, or even suggest, the desirability of the combination of polling a transaction log file of a non-relational database of a proprietary system at a time interval by at least one data replication server not running the non-relational database for file transactions of the non-relational database, and reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database as specified above and as claimed in claims 1 and 14, from which 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 depend. Fisher, Dingman, and the alleged AAPA fail to

mention polling a transaction log file of a non-relational database of a proprietary system at a time interval for file transactions. Fisher merely discloses replicating the change based on a change to a <u>relational database</u> made by the software engineering group when releasing software tags and associated rules. Dingman merely discloses a list of events that triggers a transformation, but none of the events includes a time interval. The alleged AAPA merely discloses examples of relational databases.

In addition, Fisher, Dingman and the alleged AAPA fail to mention <u>reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database</u>. Since Fisher does not disclose a non-relational database, Fisher would not disclose reading the file transaction of a non-relational database and determining if the file transactions indicate a change in the non-relational database. While Dingman discloses a transformation engine that reads data from a source, Dingman does not discloses determining if the file transactions indicate a change in the non-relational database. The Alleged AAPA merely discloses examples of relational database.

Therefore, one of ordinary skill in the art would not have been led to modify or combine the disclosures of Fisher, Dingman, and the alleged AAPA to reach the presently claimed invention. Even, arguendo, if a person of ordinary skill in the art were to make the alleged combination, the resulting combination would still not be <u>polling a transaction log file of a non-relational database of a proprietary system at a time interval by at least one data replication server not running the non-relational database</u> for file transactions of the non-relational database, and reading the file transactions of a non-relational database and determining if the file transactions indicate a change in the non-relational database as specified above and as claimed in claims 1 and 14, from which 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 depend.

Thus, it is clear that neither patent provides any incentive or motivation supporting the desirability of the combination. Therefore, there is simply no basis in the art for combining the references to support a 35 U.S.C. § 103(a) rejection.

In this context, the MPEP further provides at § 2143.01:

The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination.

In the above context, the courts have repeatedly held that obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination.

In the present case it is clear that the examiner's combination arises solely from hindsight based on the invention without any showing, suggestion, incentive or motivation in either reference for the combination as applied to claims 1 and 14. Therefore, for this mutually exclusive reason, the examiner's burden of factually supporting a *prima facie* case of obviousness has clearly not been met, and the rejection to claims 3-5, 7, 9-11, 13, 16-18, 20, 23-25 and 27 under 35 U.S.C. §103(a) should be withdrawn.

Conclusion

It is clear from all of the foregoing that independent claims 1 and 14 are in condition for allowance. Dependent claims 2-13 and 15-27 depend from and further limit independent claims 1 and 14 and therefore are allowable as well.

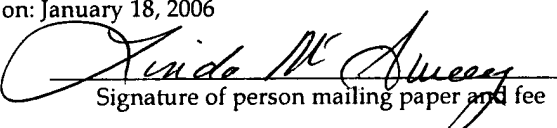An early formal notice of allowance of claims 1-27 is requested.

Respectfully submitted,

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